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The Opening Address at the R.V.C.

Professor M'Fadyean delivered the opening address at Camden Town on Tuesday to a full audience, and a perusal of our report will show that he was as usual clear, thoughtful, and suggestive.

One of the topics he discussed was the examinations in Class A. He was led to this by the fact that the rejections in Class A are always heavier than in others. Various causes operate in producing the higher proportion of failures and the first one stated by the Professor is probably the most effective. It is "the fact that few idle students are likely to get into the higher classes, and to the further fact that the experience of methods of study gained during the first session will bear fruit when the student passes into Class B, and so on." So long as human nature is what it is these two causes may be expected to take effect, and we should have thought them almost sufficient to account for the higher proportion of rejections. But the Professor, with fuller knowledge of the subject, concludes that this cannot be the whole of the explanation, and he declares "At least part of it probably lies in the fact that the student is over-burdened with work during the first year of his curriculum."

Here then is a question for the Royal College of Veterinary Surgeons. No one would desire that students should be overburdened with work in any session. An elementary knowledge of biology is certainly desirable, but if the amount of chemistry, biology, and anatomy is such that the average man cannot master it in one session, the whole course for class A may have to be reconsidered. When zoology was added to botany the latter subject was curtailed, and both were limited in amount by a syllabus which specified the degree of knowledge to be expected by examiners.

There are two sides to the question, and it would be rash to accept as demonstrated the statement that Class A is overburdened with work. Veterinary students are specially prone to dislike the minute details which form a large proportion of the first year's work. They want to get on to subjects which appeal to them as more directly interesting—to physiology and anatomy—to studies directly applicable to the domestic animals. This is only natural; but the training involved in mastering the details of the first year's subjects is invaluable for the future methods of study. If any alteration is desirable, it should consist only in a review of the syllabus so that teaching and examining may be standardised to the exact amount of work agreed upon as necessary.

There are many other points in the lecture worthy of careful consideration, but space prevents us now referring to them. On another occasion we should like to follow the Professor in his remarks on "stamping out disease" and on the progress in "Therapeutics."

Foot-and-Mouth Disease in Scotland.

Professor Williams and Mr. Clarke have established the correctness of their diagnosis to the satisfaction of the Board of Agriculture. There is no "foot-and-mouth" in Scotland, and the restrictions which were tentatively enforced are now removed.

State Aid for Veterinary Education.

The provision of a sum of £15,000 by the Government has enabled the trustees to found and open a Veterinary College in Ireland. The new institution will undoubtedly affect the number of students attending colleges in England and Scotland.

No one objects to a veterinary school in Ireland. Everyone acknowledges its fitness, and wonders how it was never founded long ago. But the private schools which have born the heat and burden of the day, which have turned out useful and well-equipped veterinarians—who have saved our flocks and herds from disease and death—those schools feel that it is not quite fair to them that in their time of stress a rival should be raised and supported by public money.

The new Irish School has had £15,000 from Goverment. The London School, in its earlier days had nearly £20,000 from Government. The Scotch schools have never had a penny, so that the question of doing right all round resolves itself into a grant or grants for the schools in Scotland. The only difficulty which might appeal to a Scotch Minister is the fact that there are three schools in Scotland—two of them proprietary institutions—and that a National grant could hardly be divided. Some combination to reduce the number and thus concentrate the strength on one National College would, we think, render Scotland's claim for State aid unanswerable.

Professor W. O. Williams has made an appeal to the powers but so far without success. He wrote to the Secretary of State for Scotland and also to the First Lord of the Treasury. The replies are unsatisfactory—based upon some red-tape reference to the Local Taxation Account. It is quite immaterial to the colleges out of what fund or account the money comes—failing any available, it must come through a Parliamentary Vote.

Below is the correspondence as published in *The Veterinary Journal*.

To The Right Honourable Lord Balfour of Burleigh,
Secretary for Scotland,
Dover House, Whitehall.

My Lord—In the Agricultural and Technical Institution (Ireland) Bill the following appears in page 6, clause 16, sub-clause (*a*) :—

"A capital sum, which shall not, save with the concurrence of the Agricultural Board, exceed *fifteen thousand-pounds*, shall be applied for the purpose of providing suitable buildings, fittings, and appliances for the Royal Veterinary College of Ireland."

I venture humbly to lay before your Lordship the following facts.

There are four Veterinary Colleges in Great Britain, one in London, two in Edinburgh, and one in Glasgow.

Not one of these Colleges receives any Government or other aid, or ever has done so. The London Veterinary College is supported by subscribers, who obtain special advantages in return—by students' fees—and by professional fees earned by the staff; also receives a grant in aid of a special subject from the Royal Agricultural Society.

The Dick Veterinary College in Edinburgh is a trust of the late Professor Dick, and endowed with certain properties which realise a small sum per annum, which assists in supporting it. Its other means of support are the students' fees and the earnings by the Staff

The New Veterinary College, Edinburgh, is owned by its founder (Principal Williams), and supports itself by its students' fees and the earnings in practice by the Principal and his assistants (member of the Staff).

The Glasgow Veterinary College is owned by its founder (Principal M'Call), and supports itself by its students' fees and the earnings in practice by the Principal and his assistants (members of the Staff).

All the three Scotch Colleges have been built specially by their founders for the teaching of veterinary science.

A few years ago, with the concurrence of the Principals of the Veterinary Colleges, the Council of the Royal College of Veterinary Surgeons (the governing body of the veterinary profession) increased the length of period of study, instituted four Professional Examinations instead of three, and much increased the severity of the Entrance Education Examination. To this the Scotch Colleges (which have no subscribers like the London Colleges) agreed for the benefit of the profession solely, as they were fully aware that this increased severity would much diminish the numbers of students attending,

This has proved true, and I may say that the Scotch Veterinary Colleges are at the present time not being worked at a profit.

If the Scotch Colleges are about to be placed at a great disadvantage to the Veterinary College in Dublin it will simply mean their ruin.

On behalf of the Scotch Veterinary Colleges, I humbly crave your Lordship's kind consideration of their desperate position.

Edinburgh has hitherto been looked upon as the centre of Veterinary Education throughout the English-speaking world, and the leading veterinarians at home and abroad graduated there.

We do not desire that Ireland should not have a Veterinary College, but we do desire that we shall not be placed at a great disadvantage. The life earnings of some of us are sunk in the Colleges.—I have the honour to remain, your Lordship's most humble and obedient Servant,

W. Owen Williams,
Professor at the New Veterinary College,
7th July, 1899. *Edinburgh.*

Dover House, Whitehall, *7th July*, 1899.

Dear Professor Williams,—I am directed by Lord Balfour of Burleigh to acknowledge receipt of your note of this date, with accompanying statement regarding the Agricultural and Technical Institution (Ireland) Bill and the Veterinary Colleges in Great Britain.

Lord Balfour desires me to say that you have not made it sufficiently clear in your statement what it is that you wish him to do, but if you can formulate definitely the object you have in view he will then be in a position to consider whether it will be necessary to have a meeting with you.—I am, yours very truly,

Geo. A. J. Lee.

W. Owen Williams, Esq., &c., &c.

To The Right Honourable Lord Balfour of Burleigh,
Secretary for Scotland,
Dover House, Whitehall.

My Lord,—I would humbly suggest that each College should receive a grant in aid of Veterinary Education of £750 per annum, being the sum equal to the interest at 5 per cent. £15,000, the grant to Ireland. This would then to a certain extent place us on an equal footing with the Dublin Veterinary College.—I have the honour to remain, your Lordship's most humble and obedient Servant,

W. Owen Williams,
Professor at the New Veterinary College,
July 7th, 1899. *Edinburgh.*

[The letter addressed to the Right Hon. Arthur James Balfour, M.P., First Lord of the Treasury, 10, Downing Street, London, was identical with that to Lord Balfour, with the addition of the above paragraph, "I would humbly suggest, etc."]

Treasury Chambers, *July 20th*, 1899.

Sir,—The First Lord having laid before the Lords Commissioners of Her Majesty's Treasury your application for a grant of public money to the Veterinary Colleges in Great Britain, corresponding to that which it is proposed to give to a College for similar purposes in Ireland—in reply I am to explain that the proposed grant in Ireland is to be derived not from money voted by Parliament but from the Irish Local Taxation Account. That account, and the corresponding Accounts for England and Scotland, are supplied by the proceeds of taxes, or prescribed portions of taxes, collected by Imperial officers, and payments are made out of the Accounts to various local purposes prescribed by Statute for England, Scotland, and Ireland.

You will understand, therefore, that the Treasury is not concerned with the purposes for which such payments are made, as they do not affect the Exchequer; and any application affecting those purposes should be addressed, in the case of Scotland, to the Secretary for Scotland.

This answer disposes, so far as this Board is concerned, of your application under reply, as my Lords can hold out no hope of an application to Parliament for a vote of money in aid of the institutions in which you are interested.—I am, Sir, your obedient servant,

Francis Mowatt.

Professor Williams,
The New Veterinary College, Edinburgh.

Scottish Office, Whitehall, S.W.
12th December, 1899.

Dear Sir,—I am directed by Lord Balfour of Burleigh to state that he has considered the application which you laid before him in July last, and the letter from the Treasury, of which you sent a copy.

His Lordship does not think that your claim either to a grant from the Treasury or to a share in the amount available for distribution under the Local Taxation Account Acts can be maintained.

It appears from your letter that the College is owned and carried on by yourself with the help of the students' fees. This renders it ineligible for a share in the amount available from the Local Taxation Account, the possible beneficiaries from which are defined by Section 2 (1) (B) of the Education and Local Taxation Account (Scotland) Act, 1892.—I am, Dear Sir, yours faithfully,

G. A. J. Lee.

W. Owen Williams, Esq., &c., &c.

ABSTRACTS FROM FOREIGN JOURNALS.

CASE OF ALOPECIA IN THE HORSE.—By G. SAVARY, Assistant V.S. 30th Regiment Artillery.

Baldness is a symptom common to a number of morbid conditions, and although they are not so complicated in the horse as the human being they nevertheless are obscure and deserve special attention. The conditions that cause baldness can be classified: 1st. serious general disturbances accompanied with or followed by anæmia; 2nd., cutaneous affections, such as eczema and pityrasis; 3rd., nervous affections; 4th., parasitic; 5th., derangement in the cutaneous circulation.

The best known causes are those that arise from animal or vegetable parasites (achorion, trichophyton, or acarii) all of which have been carefully studied and described. There are, however, other causes that are most obscure if not altogether unknown, such as an epizootic mentioned by Roy in 1890, which although strongly suspected of being parasitic could never be proved to be so. General or partial alopecia, whether from intrinsic or extrinsic causes has never been properly studied in the horse, at least the periodicals are silent on the subject with the exception of a case mentioned by Brisavoine, in 1888 who observed it in several horses who were placed together with unfavourable sanitary surroundings, overworked, badly fed and groomed, these animals were attacked with dry seborrhoeic alopecia induced by cold. Although closely resembling those observed by Brisavoine the following case differs in the absence of any predisposing cause.

A grey 9-year old mare, an officer's charger was brought under my care on March 2. All the hair had fallen off the outside of the off fore arm in a patch about as large as the palm of the hand. The skin was of a dark grey colour, and covered with a thin scurff. It was soft and supple to the feel, and no excoriation or irregularity could be detected. When closely examined it could be seen that the hairs had not broken off, but actually had fallen out from the roots. The hair for a distance of ¾in. to 1¼in. round this bare patch was standing on end, and the slightest traction caused them to fall out. There were two other similar patches on the outside of the leg, one on the shank, and the other on the pastern. The patches were irregular in shape and the surrounding hairs falling out so rapidly that in a short time the entire limb would be completely denuded. There was also a patch on the inside of the knee and another on the fetlock, and although not so extensive were of the same character as the external ones. The left leg had patches on it exactly identical with the right.

As we have remarked there was no excoriation or irregularity in the skin, and an entire absence of any irritation. The mare was in good health and condition, doing moderate but regular work, and was well-groomed and carefully attended to. The supposition of the owner that it was pithyriasis or scabies was at once disposed of from the absence of pruritis and scabs that are characteristic of these diseases It was also impossible to attribute it to clipping. The trichophyton usually comes in small circles and only form patches by confluence; also the limbs are seldom primarily affected; furthermore in this case the hairs were not broken off but had fallen out.

The peculiar appearance also showed that is was not eczema, which is unmistakable, and in phthiriasis there is an abundance of solid scabs, whereas in this case they were scanty and fine.

The only satisfactory conclusion was that it was due to deranged cutaneous circulation brought on by cold. This view was strengthened by the fact that just before there had been a sudden fall in the temperature 10° C. in the course of 24 hours, and that the stable the patient stood in was cold and she was close to the door.

The action of cold is to produce anæmia of the hair pappules which is succeeded by congestion and slight exhudation, and this appears to be the explanation of the phenomenon.

Microscopic examination showed that the cortical of the hair was quite intact, and that there was no swelling along the whole of its course. In the bulb the constituent cells were deformed and separated as if by the exhudation having permeated between them. They did not take the carmine stain as readily as those in a normal condition did.

Treatment consisted at first of well washing the parts with soap and water to remove the scurff and dead hair, and a daily application of 5 per cent. lotion chloral hydrate, alternated with a cantharides application, and protection from the cold.

The case remained stationary for a long time, but finally improved, and three weeks after the commencement of treatment the bare patch was covered with a certain number of thin white hairs. Towards the end of the month of March all treatment was stopped, but the new hairs were lighter in colour and more scanty than formerly. This case appears to show that cold alone without any other cause is capable of causing partial alopecia.—*Recueil de Médécine Vétérinaire*, Sept. 15th, 1900.

JOSHUA A. NUNN.
Vet.-Lieut.-Colonel, A.V.D.

Sept. 27th, 1900.

ROYAL VETERINARY COLLEGE.

The winter session of the Royal Veterinary College, Camden Town, was opened on Tuesday last, October 2nd, when Professor McFadyean, M.B., B.Sc., M.R.C.V.S., delivered the introductory lecture.

The chair was occupied by Romer Williams, Esq., and there was a very large attendance both of visitors and students.

The CHAIRMAN, in introducing the lecturer, said he thought it might be safely said that ever since the foundation of the Royal Veterinary College it had continually proved its popularity and extreme utility to the whole of the world. Veterinary science, like all other medical science, had made vast strides during past years, and the Governors and management of the College had the earnest desire and constant endeavour to afford and offer the students an education based on the highest and most progressive lines. In this they were ably seconded by the learned and eminent professors under whom the pupils had the good fortune to study. He urged them to make the best of those advantages, not only for their

own sake but also for the sake of the great profession they had chosen to adopt.

Prof. McFadyean, who was accorded a hearty welcome, then delivered the following introductory lecture :—

We have met to day to inaugurate the 109th session of the Royal Veterinary College. The first day of a new session may be said to be the scholastic 1st of January—the passing of a milestone on the highway of life, an occasion for pausing to look back at the road recently traversed, and for looking forward in an endeavour to trace the way by which we must advance. The year which now lies behind us has not been uneventful. It is satisfactory to be able to reflect that from the point of view of the main purpose of the institution the past session was a very successful one. The number of students in attendance was satisfactory, and it may without exaggeration be said that in no previous year have the students displayed greater diligence or achieved a greater degree of success at the examinations. In the examination at the close of the year 72 per cent. of the candidates were successful, and 22 per cent. of them were awarded honours. When it is remembered that these results were obtained after searching written, *viva voce*, and practical examinations, in which the teachers have no hand in framing the questions, it ought to be admitted that the percentage of passes is very satisfactory. It would, indeed, have been considerably higher, and have exceeded that of any previous year, had it not been for an unusually large number of failures in the 1st or A examination. With great constancy in recent years what may be called the casualities of examination have been heaviest in Class A, and the explanation of this is not quite certain. Some allowance must, of course, be made for the fact that few idle students are likely to get into the higher classes, and for the further fact that the experience of methods of study gained during the first session will bear fruit when the student passes into class B, and so on. But this cannot be the whole of the explanation of the greater number of rejections in the First examination. At least part of it probably lies in the fact that the student is over-burdened with work during the first year of the curriculum. (Cheers.) The subjects of study during the first year are chemistry, biology, and anatomy. The inclusion of biology when the curriculum was re-modelled a few years ago appears to have had an effect which was not intended, inasmuch as it has virtually amounted to the addition of a new subject, to the mastery of which the student finds it necessary to devote a very considerable proportion of his time. Previously botany was one of the subjects of the First examination, and when the Council of the Royal College of Veterinary Surgeons substituted biology for it, it was generally understood that only an elementary knowledge of botany would be required of future candidates. As a matter of fact, however, the examination in botany remains as difficult as it was before, and an entirely new subject, viz., zoology, has been introduced. I am one of those who think that the study of biology may very properly be included in the scheme of education for the veterinary student, but the examination on the subject should not be allowed to assume improper proportions, as I fear it is doing at the present time. (Cheers.) At the present time it is particularly unfortunate that the rejections in the First professional examination are so numerous, for repeated failure is apt to lead a number of students to abandon their studies altogether. This is very undesirable at a time when there is some reason to fear that the new members entering the profession are barely sufficient to maintain its numbers, or to meet the requirements of the nation.

The great event which has engrossed so much of the attention of the nation during the past twelve months—I mean the war in South Africa—has had a special interest for ourselves. Early in the year, when the call for volunteers was made, seven of our students obtained leave of absence from their studies in order to fight for their Queen and country—(cheers)—and I grieve to say that one of them—Mr. Ralph Paynter Williams—was killed in action on the 26th of August last. Mr. Williams had only recently passed the second examination, and his intention was to enter the Army Veterinary Department on obtaining his diploma. He had qualities which made him a general favourite with his fellow students, who will mourn his untimely death and cherish his memory. In this connection I ought not to omit to mention that in addition to these seven students three of the College servants, who belonged to the Army Reserve, have also been fighting in South Africa, from which we hope they will soon return to resume their places here.

Before taking leave of these events of the past session which seem to call for notice on the present occasion, I may be permitted to refer to the loss which the institution has just sustained through the resignation of Professor Hobday. It is now seven years since Prof. Hobday joined the College Staff as lecturer on materia medica and hygiene, and during that time he has served the institution in a manner that deserves the highest praise. I feel that I may take it upon myself to say that he carries with him the most earnest good wishes of his recent colleagues and former pupils. (Loud cheers.) To his successor, Professor Woodruff, who is no stranger to us, I may also be allowed on behalf of the staff and students to extend a hearty welcome, and to express our hope and confidence that he will prove a worthy successor to Prof. Hobday. (Cheers).

The events to which I have just referred lie close behind us, and have naturally suggested themselves for notice in a review of the past session. But the present occasion is a very special one, inasmuch as we stand near the close of the century which almost includes the past history of the veterinary profession in this country. If there is wisdom in the habit of reflection on occasions which occur but once annually, it is surely appropriate that we should to-day look backwards over the history of veterinary science during the last 100 years.

The Beginnings of Veterinary Science.

Doubtless in the very earliest days of the domestication of animals attempts were made by man to prevent or cure diseases in his flocks and herds, and in a sense the beginnings of the veterinary art are lost in antiquity. But although it is also true that notions regarding the nature of animal diseases and the best methods of treating them had been committed to books in very ancient times, the real birth of veterinary science may be said to date from the foundation of the oldest European Veterinary College, in the latter half of the 18th century. The Royal Veterinary College was founded in 1791, and one hundred years ago the Royal Veterinary College was therefore only in the tenth year of its existence. From the modern student's point of view, the early years of the century must have been a very happy time, since there was only one examination, and the whole curriculum extended over only 18 months. Unfortunately no precise record of the examination at that period has been preserved, but there can be no doubt that it was very simple as compared with the stringency of the tests by which entrance to the profession is barred at the present day. At the same time, one cannot help thinking that however happy the veterinary student of 100 years ago may have considered himself—and probably he was no more contented than his successor of the present day—the teacher's lot is now in most respects a more congenial one. At that period the torch of knowledge burned very dimly, the current views regarding the real cause and nature of many morbid conditions were to a very great extent speculative, and, as we now know, much that was then taught was entirely erroneous. The

views that were then put forward may have appeared to be those most in harmony with the ascertained facts, but in many instances these were few, and it is scarcely possible to doubt that many theories regarding particular diseases were felt to be far from satisfying by those who had to teach them. We admit that to be true of not a few diseases at the present day, for there are still a considerable number of un-illuminated areas in our field of labour, but many parts that were absolutely dark at the beginning of the century are now perfectly clear. Where the teacher had once to tread warily and without assurance that he was himself on the right path, he can now ask his pupils to follow him without any misgiving as to the necessity of having to turn back. We have still much to learn, but we feel assured that many facts regarding the cause, nature, and treatment of a considerable number of diseases have now been definitely ascertained, and that what we believe regarding them will never have to be unlearned. In the case of many diseases, the views held at the beginning of the century, and indeed for long afterwards, were so erroneous that the student of to-day might be tempted to think that had his lot been cast in earlier times he could not have failed to achieve distinction by pointing out the prevalent errors and exposing the facts in their true light. It would certainly be a vain thought. It would be a great mistake to suppose that the errors of 100 years ago were obvious; they were incorrect conclusions drawn from insufficient data, and they do not constitute any evidence that the workers of the time were inferior in point of intellectual acuteness to those of the present day. A study of the growth of veterinary knowledge during the century ought to furnish some lessons valuable for our own time, and I propose on this occasion to refer very briefly to some of the principal changes that have taken place in veterinary opinions and practice since the early days of this institution.

Our Advance in a Century—Pathology.

At the beginning of the century the fact that glanders was contagious appears to have been generally accepted in this country, but it was not admitted that every case arose in that way. Blaine, writing in 1802 observed that it seemed to him that when it appeared to be very infectious it was probably simply epidemic, by which he obviously meant arising from local influence apart from contagion or infection. He quoted with approval Coleman's opinion that it was oftener generated than caught, and he cited in support of it the observation that horses emaciated from a severe campaign or after long voyages were peculiarly liable to be affected, apparently implying that such instances were examples of generation of the disease. At the present day, it need hardly be said, it is universally accepted that contagion is the only cause of glanders, and it is of interest to trace the steps by which this truth has been established. In the sense that one cannot prove a negative, it must be admitted that even now it is not ascertained and demonstrated fact that glanders never arises spontaneously, but the widest experience does not provide any fact which compels the conclusion that it ever originates apart from contagion. The belief that the disease was sometimes generated was never justified, and it only appeared to be so because outbreaks of the disease not infrequently occurred in stables into which no horse showing any symptom of glanders had ever been admitted, and because it often broke out during or at the end of a voyage among horses that had presented no symptoms indicating that they were affected at the time when they were shipped. Now these were actual facts, of which illustrations continue to occur down to the present time, but the mistake lay in supposing that the observations proved or even made probable the spontaneous origin of glanders. One of the premises necessary to justify the conclusion had been erroneously assumed to be true, viz., that the apparently healthy horses among which the disease broke out were all free from glanders. When large cargoes of horses were shipped over sea the disease often broke out among them simply because glanders was a very common disease through the world, and because many glandered horses retain for considerable periods the appearance of perfect health. For the elucidation of this latter truth neither genius nor deep insight was necessary, All that was required was systematic, careful post-mortem examination. A searching examination of the internal organs of horses dead from glanders at the beginning of the century would undoubtedly have shown the almost constant presence of nodules in the lungs as well as ulcers in the nose; and if the habit of examining all the internal organs in conducting post-mortem examinations had been common it must soon have been noticed that the same nodules were not confined to horses that had presented symptoms of glanders during life, but were frequently found in healthy animals slaughtered on account of accident, or dead from some other disease than glanders, and that they were particularly common in the stable companions of horses that had died from glanders.

Another disease regarding which much has been learned since the beginning of the century is tuberculosis. It is scarcely possible to say what views were held regarding this disease by the veterinary teachers in this school one hundred years ago, for if one may judge from the literature of the time it received very little attention. But when it came to be recognised that it was a common disease of cattle, veterinary surgeons adopted the views then prevalent regarding human consumption, including a belief in its inheritance. As recently as 20 years ago the opinion that tuberculosis was an extremely hereditary disease was universally held by veterinary surgeons, and it is only within the last decade that it its erroneousness has come to be generally recognised. The belief that tuberculosis was frequently transmitted from parent to offspring was based upon the observation that the progeny of tuberculous individuals furnished a far larger proportion of victims of the disease than the progeny of those who appeared to be free from the disease. In other words, it was observed that the development of tuberculous symptoms in the progency of tuberculous subjects was almost the rule, whereas the progeny of healthy parents only exceptionally fell victims to the disease. Roughly speaking, this was and still is true for small herds or families living in comparative isolation, but the facts observed never amounted to proof of hereditary transmission.

The belief in the frequencey of congenital transmission of tuberculosis was shattered (1) by recognition of the fact that contagion was at least one of its modes of origin, and (2) by careful post-mortem examination of the new born calves of tuberculous cows. Observations of the latter kind have shown that except in comparatively rare instances the progeny of tuberculous cows come into the world without any trace of the disease, and recognition of the contagious nature of the disease made it almost absurd to ascribe its greater frequency in particular families to congenital transmission. The natural and correct interpretation of the facts was that the greater frequency of tuberculosis among the progeny of those who were themselves visibly affected with the disease was due to the offspring being almost invariably born into a place in which they were afterwards constantly exposed to the risk of infection. A large proportion of such animals subsequently developed symptoms of the disease not because it was present in their systems at the time of birth, but because they caught the disease in quite the ordinary way after they were born. Here, again, we see that careful clinical and post-mortem examination might have sufficed long ago to dispel the belief that tuberculosis is frequently in-

herited, but it ought to be admitted that had it not been for the results of experiments which showed that the disease is transmissible by inoculation and otherwise, and for Koch's brilliant discoveries regarding the bacteriology of the disease, the fact that tuberculosis is almost exclusively spread by contagion might not yet have been generally admitted. Moreover, a striking fact in connection with the additions made to our knowledge of both human and animal diseases during the past 100 years is that the last 25 years have been more fruitful in discoveries than all the preceding part of the century. The illustrations which I have already taken emphasise the importance of pains-taking investigation along the lines of clinical observation and post-mortem examination, and it was with that object that I chose them. It is important, however, to notice that the great majority of the discoveries of the century regarding the causes of disease have been made not by greater assiduity in the collecting of clinical facts or in recording the appearances revealed by post-mortem examination, but by application of new methods of research, in which the use of the microscope, the artificial cultivation of bacteria, and experimentation with animals have played the chief part. By the use of such new methods of investigation a truly marvellous addition has been made to our knowledge. We now posses the most precise information regarding the cause of anthrax, black-quarter, tetanus, and many other diseases about which altogether erroneous views were held and taught well into the present century. It would be difficult to apportion the exact share of credit which belongs to the three methods of research which I have mentioned, mainly because they have been usually employed in combination. Immense strides in pathology have undoubtedly been made simply by the microscopic examination of diseased tissues, and a large part of our knowledge of the disease producing bacteria has been acquired independently of experiment on the living animal, but no honest person acquainted with the facts can deny that to-day we know much that is of the highest practical importance regarding both human and animal diseases of which we should have been still entirely ignorant had experimentation on living animals been a forbidden method of investigation. (Cheers). It would perhaps be going too far to say that neither clinical observation, post mortem examination, nor the most diligent application of the microscope, could ever have unravelled the etiology and pathology of the three diseases which I mentioned a minute ago, but it is not going too far to say that in all probability the truths about them which we now know would have escaped detection for countless ages to come if resort had not been had to the experimental method of investigation.

Therapeutics.

In what I have said I have had in mind mainly the advances that have been made in regard to knowledge of the cause and nature of diseases. Naturally, the century has also witnessed great changes in methods of treatment and prevention. Discovery of the cause has in many cases suggested practicable measures of prevention, and in a number of instances it has also led to the discovery of remedies. It must be confessed, however, that the science of pathology, and more particularly of etiology, has during recent years seriously out-paced the science of therapeutics. I have already hinted that the close of the century finds the teacher of pathology in a much happier condition than his predecessor of one hundred years ago, but it may be doubted whether the advance of time has in an equal degree increased the confidence of the teachers of materia and therapeutics in the efficacy of drugs in the cure of disease. There was no lack of alleged remedies at the beginning of the century; but many methods of treatment in which our forefathers placed much confidence have now been almost entirely discarded. Bleeding is a notable example. The practice of bleeding was founded on altogether erroneous views regarding the nature of the morbid processes which it was designed to counteract, but, of course, it might have been successful in spite of that, and we know that the practice was thought to be fully justified by the results, apart from any theoretical considerations regarding the nature of disease. There can hardly be a doubt that it killed far more patients than it cured, and the fact that it ever found favour suggests some reflections on the necessity for care in estimating the beneficial effects of methods of treatment in our own time. In the case of diseases that are almost invariably fatal (of which, fortunately, there are not so many as was at one time supposed) there would be little chance of error in this direction, but there is obviously much risk of error when what may be called the natural mortality from the disease is not known, and when the practitioner is inclined to record mentally (and perhaps otherwise) every case of recovery as a triumph of his own skill. We are perhaps entitled to regard as one of the advances made during the century that we are more inclined than our forefathers to credit the sick animal with considerable natural powers of resistance to most of the causes of the disease, and in the case of bacterial affections we may well hesitate to intervene in the combat, lest our well-meant endeavours should prove fully as embarrassing to the defending cells of the animal as to the attacking microbes. At the present time it is the practitioner who is most ignorant regarding pathology who plies his patients most freely with drugs. The profession as a whole are now more careful in the administration of strong medicines in the treatment of internal inflamation, such as pneumonia, and there is no doubt that the recoveries to-day compare favourably with those of the early part of the century.

Blistering and firing are still much practiced, and as therapeutic measures they may be said to have stood the test of the century. Dare one suggest that their reputation is not deserved, or hint that before another century closes they may be as much discredited as bleeding? I am afraid that the practitioner who did so would suffer discredit himself, but it is perhaps permissible to suggest that the clinical evidence even of a century might not be conclusive on such a question. At the time when every patient, human and equine, was bled and physicked, there was no clinical evidence as to the merits of less vigourous treatment, and so at the present day, it may with much truth be said that the alleged overwhelming evidence in favour of blistering is no evidence at all. Thousands of horses are fired and blistered (which involves a considerable period of rest); many get well or are improved, and the result is set down to the counter-irritation. But who at the present time with any considerable practice dares to treat his sprains, splints, and spavins by simple rest without blistering or firing? The answer is, no one, and neither the past nor the present furnishes the necessary data from which to estimate the therapeutic value of severe counter-irritation.

The last few years of the century have put us in the possession of some new remedies of the existence of which our forefathers certainly never dreamt—I mean the so-called anti-toxic sera. It is true that as yet these agents have a very limited value in the treatment of disease, but greater developments of this method may reasonably be expected in future. Already it has put into the hands of veterinary surgeons a weapon with which they can with absolute certainty ward off attacks of traumatic tetanus, provided the owners of animals with wounds will immediately place them under treatment. It may be noticed in passing that the introduction of remedies of this class is another striking example of a valuable discovery which would never have been made without resort to experiments on animals.

In taking leave of this part of the subject, it may be observed that fuller knowledge of pathology has done much to restrict the administration of internal medicines.

It has taught us that for a good many things no medicinal treatment is necessary, since the animal machine is to a very large extent self repairing. There are no specifics for broken bones; we put them in position and confidently leave the process of repair to nature. We are gradually coming to recognise that not a few of the things that were at one time viewed as being themselves the essence of disease, are in reality processes of defence and repair, and not requiring any repression by medication. Practically, all inflammatory phenomena are in this sense beneficial, and all that needs to be combated is the cause of them. When that has been effected inflammatory phenomena tend to subside, and in the majority of cases the natural powers of the healthy body will do all that is possible in the way of repair, provided the patient is placed in conditions that are hygienic. When that condition has been complied with, it is doubtful whether nature can be hurried by medicinal agents, and it is not doubtful that the process of repair can be retarded by them. Great care should be exercised before saying of any medicinal substance that "if it does no good it can do no harm." It is the recognition of these facts that has led us to attach so much importance to good nursing and to all that is included under the term hygiene.

Animal Diseases—"Stamping Out."

In any complete history of veterinary science during the nineteenth century, the struggle with animal diseases would occupy a large space, but time will not allow me to do more than refer very briefly to that subject. To this country belongs the credit of having initiated what has come to be known as the system of "stamping out" in dealing with the purely contagious diseases of the domesticated animals. The purely contagious diseases are those which are caused by microbes (in some cases still undiscovered) that multiply only in the bodies of the animals attacked, and it needs no scientific learning to see that the extinction of such a disease ought to be possible by instituting a systematic search for diseased animals, and destroying these and all others that have been in contact with them. When this is combined with adequate disinfection of contaminated places and things, it is obvious that, theoretically, the system ought eventually to exterminate the disease. It was first put into practice against cattle plague, and it yielded the results which were expected. It was, however a very expensive process, because before the nature of the complaint was understood, and the system of stamping out begun, it had spread widely throughout the country. It has been calculated that this outbreak of cattle plague cost the country not less than three millions of money. It was a heavy penalty to pay for ignorance and unpreparedness, but the lesson which it taught was worth a great deal of money. Since the outbreak which began in 1865 was extinguished, the disease has on two separate occasions been imported into this country, viz: in 1872 and 1877. The measures taken in the first of these years confined the disease within the limlts of a single county, and exterminated it in a short time with a total of 72 animals attacked. The same measures were almost equally succeasful in the outbreak of 1877, in which only 263 animals were attacked. But the lesson taught by cattle plague in 1865 did more than teach us how to deal with that disease in the future. It suggested the same system might be successfully applied against some of the other contagious diseases of the domesticated animals, and that the institution of proper precautions against fresh invasions might give this country a perpetual clean bill of health. The results already obtained have been truly magnificent. The closing years of the century have seen the extinction of contagious pleuro-pneumonia of cattle, after it had ravaged the country for over half a century, and inflicted loss which must have amounted to millions of pounds.

Rabies we have reason to hope will have been exterminated before the century closes, and the measures which have been applied so successfully against it are in principle the same as those that stamped out cattle plague and pleuro-pneumonia. Foot-and-mouth disease, which was first introduced into this country in 1839 was not extinguished till 1886, after it had occasioned losses which probably exceeded ten millions. It is true that the result in that case was partially achieved by less vigorous measures than wholesale slaughter of disease and suspected animals, viz: by the strictest possible isolation of diseased herds, but the final extinction was largely due to the application of the stamping-out method. Since 1886 two fresh invasions have been repelled with only slight loss to the country, and at the present moment the officers of the Board of Agriculture are engaged in a struggle with a fresh importation, which cannot fail unless there is the most culpable concealment of the disease by stock owners.

The system of stamping out has not escaped unfavourable criticism, in spite of the results achieved by it. For one thing it has been said that it is unscientific—a reproach which is meaningless unless it implies that there is some other equally practicable and not more expensive method capable of yielding equally satisfactory results, and with regard to that point it need only be said that some other countries have provided object lessons which enable one to draw a comparison not to the discredit of the system of stamping out. It is true that cattle plague was recently eradicated from South Africa by a method of protective inoculation, and should we ever have the misfortune to see the whole of this country over-run by that disease, as it was in 1865, protective inoculation might be the preferable method of dealing with it, but cattle plague can never again obtain a firm footing in Great Britain unless the Board of Agriculture should prove criminally negligent and forgetful of the lessons to be drawn from the past.

The close of the century still leaves much to be done in the direction of disease extermination. Swine-fever is still unvanquished, and so is glanders. Tuberculosis is a purely contagious disease, but the question of its complete eradication is complicated by the fact that it is as common in man as in any of the lower animals. Strangles, contagious equine pneumonia, and contagious abortion among cows, are rampant and untouched. Let us hope that before another century passes all these diseases will have been either stamped out or confined within very narrow limits.

A retrospect of the progress of veterinary science in this country during the century undoubtedly justifies a certain feeling of satisfaction on the part of the profession. From a comparatively humble beginning as an empirical art, it has gradually established a claim to be recognised as a scientific calling, and it may with some pride be said that it has done good service to the State. It has proved itself to be a hardy plant, for it certainly has had little or none of the fostering care which other States have thought it worth while to bestow in order to promote the growth and development of veterinary science within their confines. There are some who think that as a profession we are even now scarcely appraised at our true value, and that work which we conceive to be ours by right, and for which we have laboriously prepared ourselves, is, to our slight and the public detriment, either not done at all or done by others who are less fitted to carry it out. (Cheers.) In justice to ourselves we must take every legitimate means of pressing our claims, and we must endeavour to strengthen these by perseverance along the path of progress. Let us spare no effort to widen and deepen our knowledge of all that relates to the life of the domesticated animals in health and disease, and while making confession—to ourselves—of the things that we do not know, let each of us try to add our mite to the sum of veterinary knowledge. Last, but certainly not least, let us remember

that other attributes than mere professional skill are necessary in the individual members in order to establish the profession in the position that we would like it to occupy in the public estimation.

I feel that I must already have tried the patience of this meeting, but before I sit down I should like to address a few words specially to the student portion of the audience, and more particularly to those who are here for the first time. I can with all sincereity congratulate them on their choice of a profession. They have chosen one in which they will probably escape the temptations incidental to the possession of great wealth—(loud laughter)—and the inconveniences that are inseparable from poverty. Compared with some other callings it offers few prizes, but as an off-set to that there is no other with fewer blanks. It is certainly not an overcrowded profession, and there is no indication that it is likely to become so in the near future. At the present moment it may truly be said that, putting aside those who by misconduct have made ship-wreck of their own fortunes, we have in the profession no unemployed except those who do not wish to work. But I do not do you the injustice of supposing that your choice of a profession has been determined solely by an estimate of its capabilities in the matter of pounds, shillings, and pence. Your conception of the duties of the profession is doubtless such as to lead you to think that you will be able to take pleasure in your work apart from the remuneration which it brings. There are occupations so mechanical and monotonous as to be little better than tread mills for the grinding out of the necessary portion of daily bread, but the veterinary profession is not one of these. The practice of medicine, whether human or veterinary, presents an endless variety of interesting problems, the solution of which affords an exercise for the most perfectly trained powers of observation and the highest reasoning faculties. However clever you may be, and however well educated you may be in the ordinary meaning of the word, you will never have occasion to regret that you adoped a calling that did not afford full scope for your abilities. But I hope I shall not be considered unkind if I mention the fact that you are not yet within the fold of the veterinary profession, and that there is much hard work before you if you wish to be admitted after the minimum period of probation. Those of you who are only just beginning must study for four years before you will be admitted to the final examination. It doubtless seems a long time, but it is none too long for what has to be learned, and those who reckon that a special effort later on will compensate for idleness at the outset are likely to bring disaster on themselves and disappointment to their friends. Fortunately on the other hand, there is no need for such close application to study as is inconsistent with the maintenance of health. Your immediate goal will be to pass your examination, and your work will be mainly directed to that end. You will find in it abundant opportunity to exercise your memory, but there is some risk that your period of student life may fail of one of the main purposes of all true education, viz., to promote the development of the powers of observation and of reasoning. To guard against this must be one of the objects of your teachers, but you must also guard against it by cultivating that mental attitude in which no doctrine or theory is admitted on mere authority, and nothing is done without knowing the reason why. (Loud cheers.)

Votes of thanks were passed to Prof. McFadyean for his able and interesting lecture, and to the chairman for his conduct in the chair.

Prof. McFadyean, after briefly acknowledging the compliment, read the Prize List for the past year.

The Chairman, in returning thanks, read the following letter, dated 18th July, 1900, from Vet. Col. Mathews, head of the Veterinary department of the Army in S. Africa :—

"Matters have gone well professionally and the veterinary officers have won golden opinions from all by their energy and devotion to duty. Our supply of departmental necessaries has been abundant and unrestricted, so we have been able to meet all demands. To realise what this means you have to remember the distance to the base of supply (England), the area of the country and the magnitude of the forces to be supplied, 'nearly 250,000 horses, mules and asses.'" He thought the letter proved how important a factor the veterinary staff had been in the war. (Cheers).

The meeting then terminated.

VETERINARY SOCIETIES

LANCASHIRE VETERINARY ASSOCIATION.

The quarterly meeting was held at the Grand Hotel, Manchester, on September 6th: Mr. Joseph Abson, presiding, and was attended by Messrs. E. Faulkner, A. K. Hart, S. Locke, W. A. Taylor, and J. B. Wolstenholme, Manchester; W. Packman, Bury; R. C. Edwards, Chester; W. Ackroyd, Hebden Bridge; J. McKinna, Huddersfield; and John Hobday (veterinary student) visitor.

Apologies for absence from Messrs. Alexander Lawson, H. Locke (hon. sec.), Jas. Mitchell, and J. H. Carter were announced.

A letter from Mr. A. MacKenzie, F.R.C.V.S., Market Drayton, tendering his resignation was accepted with much regret.

Mr. Wolstenholme having read the subjoined communication—

Border Counties' Veterinary Medical Society,
Aspatria, August 9th, 1900.

Sir,

At a meeting of the members of the above-named Society held at Penrith on the 27th July, it was unanimously agreed that a copy of the resolution be sent to the secretaries of all Veterinary Medical Societies, such resolution to be placed before their respective members, with a view of getting the County Authorities' Inspecting Fees put on a par with those paid by the Board of Agriculture.

Resolution moved by Mr. F. W. Garnett, seconded by Mr. John Armstrong :—

"That the fees paid by the County Authorities to veterinary surgeons when on inspecting duty under the Diseases of Animals Act be on the same scale as paid by the Board of Agriculture for similar work.—Yours, etc.,

(Signed) Henry Thompson,
Hon. Secretary & Treasurer.

Mr. H. Locke, M.R.C.V.S."

it was unanimously resolved, upon the proposition of Mr. S. Locke, seconded by Mr. Packman, and supported by Mr. Faulkner, that the Association should join the Border Counties Society in any action they might take in the matter.

Mr. Wolstenholme submitted a circular addressed to all veterinary surgeons by the Congress Organisation Committee and by the General Veterinary Council of France inviting the Society to attend, either as delegates or individuals, a national veterinary meeting then being held in Paris. After consideration, it was decided to acknowledge the letter and express regret that it was recived too late to be of any service, seeing that the Society's meetings were only held quarterly.

The Treasurer again drew attention to the accumulation of arrears in members' subscriptions, when, after

some discussion, he was instructed to send a special and pressing application to those in arrear.

The PRESIDENT, alluding to his visit to the recent Health Congress at Aberdeen as delegate of the Association expressed his regret at the poor attendance of veterinarians. There was, however, an excellent presidential address from Professor Williams, who, in his usual trenchant manner dealt with many diseases of a contagious character. Mr. McPhail, of Edinburgh, whose paper was on "Pseudo-Tuberculosis," disabused the minds of his hearers of pseudo-tuberculosis of the lungs of sheep being of a tuberculous nature at all, and clearly demonstrated, at any rate to most present, that it was due to one of the round worms. The veterinary section managed to get their motion that sheep's lungs affected with pseudo-tuberculosis were dangerous to man as food, passed unanimously at the general meeting. Mr. Peter Moir's paper dealing with diseases of animals communicable to man was an exhaustive one and well worthy of the occasion. It was listened to with rapt attention. The only regret was that there were not more members to hear it. He was afraid there was a disposition in the profession to rather taboo the Royal Institute of Public Health, which was, however, doing a great and good work, and veterinarians ought to make it their duty to associate themselves with the Institute at its congresses. Not only were the papers on veterinary subjects instructive, but those on other matters with which veterinary surgeons were conversant were interesting. For instance, one on "Malaria" by Dr. Manson, the best authority in the land, no doubt, on the subject, was most edifying, the life history of the parasite being fully traced and explained to the audience. Mr. McKinna, who was at the Congress, would share this opinion. The President of the Society, Professor Smith, who came in while Professor Williams was giving his address, looked disappointed at the meagre attendance. However, it was to be hoped that on future occasions the attendance would be better, and that the Royal College would, as in duty bound, send a delegate of their own.

Mr. McKINNA, in moving a vote of thanks to the President for so ably representing the Association at the Congress, regretted the poor attendance of veterinary surgeons. To represent the profession at such congresses was, in his opinion, the only and best way of putting the profession before the public. He quite endorsed the President's view that the papers were interesting. Every effort should be made to send one delegate at least to represent them at such congresses, for the benefit of the public as well as that of the profession.

Mr. FAULKNER seconded Mr. McKinna's proposition. Some allowance, he thought, might be made for the profession and paucity of attendance at Aberdeen. Certain things had influenced it—one, the manner in which the proceedings of the veterinary section were conducted last year at Blackpool. A charitable view of those proceedings was, however, taken by some of the Lancashire members, who hoped that by keeping in touch with the Institute the arrangements at Aberdeen would be improved, and he was glad to believe that the profession, though sparsely represented had a better position in the Congress. Again, there was the fact of the National Association meeting following closely upon the Congress. Everyone could not so arrange matters as to be able to attend at Aberdeen and in a short time attend at Dublin. The small attendance of veterinary surgeons at Aberdeen was regretable, but to make that section thoroughly representative and well supported the objects of the Institute should be brought prominently forward at the Society's meetings, and into closer touch with the profession, for many in the profession knew very little of the Institute and it was necessary to educate them as to its usefulness, when he had no doubt that that knowledge would develop and the Institute become more popular.

The PRESIDENT, in acknowledging the vote said he felt it a great honour to represent such an old Association as the Lancashire. The arrangements were all that could be desired.

Mr. WOLSTENHOLME then submitted several pathological specimens:—

(1) The femur of an adult horse which had suffered oblique fracture about the middle of its shaft. The specimen was one he had casually met with at the knacker's yard, and which, from extensive necrosis of the head of the bone together with the manner in which the broken portions of the shaft had become united, showed that the animal must have been in acute pain for a period extending into months. He regarded it as a marked example of cruelty to allow a horse in such a condition to have remained alive.

(2) A portion of the mesenteric artery of a three-year-old cart colt, which had been destroyed after being in a debilitated and anæmic condition for months. The specimen, with other parts of organs, had been forwarded to Mr. Wolstenholme for an opinion as to its being a case of equine tuberculosis. The lesions were, however, due to the irritation of nematode parasites, and the artery in question showed an aneurism of about the size of a hen's egg, the walls of which were perfectly rigid from calcification. He was able to find one specimen of an immature form of the sclerostoma equinum, which was exhibited mounted.

(3) The head of a young goat in which the lower jaws especially, and to some extent the upper jaws, had become involved in extensive proliferation of new material in the formation of osseous tissue which had not gone on to the deposition of lime salts—that is to say, the jaws were very much enlarged, very spongy, vascular, and cut easily with the scalpel.

Mr. FAULKNER said he had seen a number of such cases in goats and something similar in very small young ponies, from 3 to 4 years old, and both upper and lower jaws were affected, the latter more so.

Mr. PACKMAN spoke of his cob, which was a highly nervous animal when in health. About the end of June last both forelegs were blistered, and some four days after the cob had a fit in which it remained three or four minutes, when it got up shook itself, and walked to the box and commenced eating. Two or three weeks afterwards the fits recommenced, occurring at the rate of three and four per day each more severe than the last. The animal was now at his place, but it had great difficulty in walking. He inquired the cause of the fits. Surely it could not be reflex from the irritation set up by the blister?

Mr. MCKINNA thought it might be one of two causes, viz., some organic lesion in the brain, or reflex. Had it been noticed whether the cob had lost flesh at all?

Mr. PACKMAN: The cob did lose flesh at first. It was of a very excitable and nervous temperament.

Mr. TAYLOR: What age is he and have you had him long?

Mr. PACKMAN: Nine years. I have had him four years. The question was did the excitement from the blister bring about or hasten that condition of things? He thought so, and that it would have come on had the animal never been blistered.

Mr. TAYLOR thought tonics were required. The fits were, no doubt, due to some faulty circulation of the base of the brain.

Mr. MCKINNA related the case of a five-year-old chestnut well-bred Hackney, to which his attention was first called some three years ago. It appeared that an injury, probably a kick, had been received near the symphysis of the lower jaw. He treated the case in the ordinary way to relieve pain, but though the latter was relieved the

swelling did not subside—on the contrary it steadily grew. He suggested to his client to allow him, after irritation had subsided, to trephine the part, but he would not consent as it was a very valuable animal. The case disappeared entirely from Mr. McKinna until the other day, when he noticed that the growth had become an enormous size. There was, however, no evidence of disease to the skin. The teeth were alright, except that the second molar was slightly cracked, and in the crack a little piece of wood had been wedged in between and against the side of the gum, but this had not inconvenienced the animal. Obtaining his client's permission to operate, he cocained the part and trephined the bone, when about three to four ounces of pus escaped, which was of a very putrid character. After washing out the cavity a small thin fragment of bone was found which had evidently been floating in the pus. He would be pleased to hear the opinion of the members on the case, and also as to the effect of an operation before the tumour had developed so extensively.

A discussion on the case followed, in which several members took part, but it was felt very difficult to come to any definite conclusion as they had not had the opportunity of examining the patient for themselves.

Mr. TAYLOR, to emphasize the importance of extreme care in diagnosis, mentioned the case of a valuable mastiff dog brought to his place suffering, according to the owner, from obstinate constipation. The dog had been showing signs of wanting to defæcate, and the owner, like most men do, had given it castor oil which had produced fluid stools. Further, the dog had been disinclined to lie or sit down, and it was noteworthy that with the frequent attempts to defæcate there was no passing of blood. When approached at the rear the mastiff showed its teeth, so having secured it he made a digital examination of the rectum, when he found a portion of partially digested bone which had passed into the alimentary tract and become arrested in the rectum, being transfixed there and firmly embedded in the mucous membrane. By application of oil and gentle manipulation he was able to remove it without any surgical operation. After an injection the dog was taken home, and, not having heard anything of the case since, he presumed it was allright.

A short discussion on the case ensued, in which the question of fistulæ was introduced.

The PRESIDENT referred to a case he had some considerable time ago where a horse was frequently showing symptoms of colic. One day when the animal was particularly bad he emptied the rectum, and passing his hand up carefully as far as he could he felt a swelling which palpated. His conclusion was that he had an abscess. He lanced the sac and quite three half-pints of pus escaped, leaving a big cavity which he washed out for a week after with Reed's pump with a catheter at the end of it. The case did well.

Mr. WOLSTENHOLME cited a case in which he had successfully removed a large fibrous polypus from the left nostril of a cart mare, which nearly occluded the passage, and a smaller one from the right nostril.

The PRESIDENT quoted the case of a horse taken with colic at a brewery. On exploring the rectum he found a calculus, but though within reach of the tips of the fingers it could not be dislodged. An operation being arranged the animal was put under chloroform, the flank was thoroughly washed and cut into in the region where tapping is performed. Got up the bowel to the outer incision, removed the stone, stitched up the wound with an ordinary continuous suture, drew the muscles together by soft silk sutures, and afterwards stitched up the outer opening with tape. The operation was carried out under strictly aseptic conditions. Unfortunately, however, disintegration of the lungs was manifest on the second day after the operation, and death ensued shortly after. Post-mortem revealed that the wound in the bowel was healing by first intention—if it had not already done so—and death was no doubt due to absorption. When sure that a calculus existed in the floating colon, he saw no reason why an operation should not be performed with success. The thing to his mind was an early operation.

A vote of thanks to the President for his conduct in the chair having been proposed by Mr. McKinna, and seconded by Mr. Faulkner, the proceedings terminated.

EXTRACTS AND NOTES.

THE NEW VETERINARY COLLEGE IN IRELAND.

A meeting of the Governors of the Royal Veterinary College of Ireland was held on the 26th ult, at Leinster House. Sir Christopher Nixon presided, and there was also present:—Sir T. P. Butler, Bart,, Sir Charles Cameron, C.B., Sir W. Thornley Stoker, Professors Bermingham and Carroll, W. Field, M.P., W. Pallin, F.R.C.V.S., T. D. Lambert, F.R.C.V.S., Capt. Lewis, J. Riall, Professor G. F. Fitzgerald, the Treasurer and the Principal.

The business disposed of included the appointment of various gentlemen to the staff of the College. On the recommendation of the executive committee the undermentioned were unanimously elected:—Dr. Dennis Coffey as Professor of Physiology; Mr. F. C. Mason, M.R.C.V.S., Blackrock, as Professor of Materia Medica and Veterinary Hygiene; and Mr. W. J. Beckett, M.R.C.V.S., Dublin, as Demonstrator of Anatomy and Hospital Surgeon.

TO THE EDITOR OF THE IRISH TIMES.

Sir,—I think Mr. R. Dowse deserves the greatest credit for drawing the attention of the public to the fact that the above is about to be established almost in the centre of the city. His letter in your journal of Friday last does not overstate the serious danger with which we are threatened, and I am only surprised that our sanitary authorities are not more on the alert. If this College was placed in the suburbs, say at Roebuck—it would be far better, but in its present proposed position it will not only be a source of great danger, but destroy all the property in its neighbourhood.—Yours, etc.,

AUSTIN MELDON, D.L., F.R.C.S.

15 Merrion Square, North, Dublin.

BUYING REMOUNTS.

There is no doubt the Remount Department have purchased hundreds of useless horses, which could have been avoided had those in authority been willing to accept the services of those who are acquainted with country districts, and not confined themselves to hard and fast red-tape rules of purchase.

Among many instances I will mention the following that have come under my own observation and knowledge. At the beginning of the war a large dealer, who had been supplying a number of cavalry horses every year, offered to place 2,000 on board ship at cost price from patriotic motives. His letter was never answered; he has since, however, considered the Government fair game, and has made over £6,000 profit by the horses purchased for them.

Another dealer bought three horses for £18 the lot, and sold them to the remount buyer at close up to £30 each. Hundreds of Yankee horses have been bought in Liverpool, only landed for a couple of days, their tails

squared, sold as English, and reshipped right away for Africa. What sort of a state would they be in to go on to the front?

Too much red-tape veterinary work has been the rule, and hard and fast lines upon which horses must be bought. No fired hocks or splints could be taken, however suitable the horse might be in every other respect. Scores of good hard hunters I have seen rejected for these reasons. Take one example: I offered a mare which I had ridden regularly to hounds for two seasons; she was seven years old, and picked out by the remount officer as the typical animal required. The official vet. found a splint, it was really a bang—anyhow, there was a bony deposit; they were very sorry, but she was technically unsound. I afterwards sold her to a friend in the Yeomanry. As long as horses were practically sound, they were taken in that force. The last I heard of this mare, a few weeks ago, was that she was still going strong and well. Her rider (a trooper) had been in all the forced marches with Lord Methuen's force, and she went out from this country in hard hunting condition last February. Surely if horses can stand regular hunting with fired hocks or some hunting blemish, there should be no hard and fast rule against them for a trooper.—*Live Stock Journal.*

A SUBTERRANEAN CREMATION FOR ANTHRAX.

A novel method of disposing the carcase of an animal which was supposed to have been a victim of anthrax, or at any rate which had died and been buried under circumstances which were suspicious, was tried at Walwyn's Castle, on Friday last, and was entirely successful.

It appears that the animal, which belonged to the Rev. T. G. Marshall, M.A., Rural Dean, of Walwyn's Castle, died suddenly in May last. It was skinned and buried under 2ft. of earth in one of Mr. Marshall's fields, but the rev. gentleman being under the impression that the cow died of inflammation, did not report the matter to the police or the local authorities. The rev. gentleman lost a pony a short time afterwards, and being under the impression that it had died of colic he reported it. The matter then came under the notice of Mr. Evans, the veterinary inspector for the county, who came to the conclusion that the pony had died of anthrax, and on his directions the animal was buried in its skin 7ft. deep with lime and other strong disinfectants.

Dr. Griffith, of Milford Haven, the Medical Officer of Health, next heard of the affair, and began to investigate the circumstances of the death of the cow. On examining the place where it was buried he found that in winter time a stream flowed within 10ft. of the carcase, and that if the cow died of anthrax there was extreme danger of the infection being spread amongst the cattle which had access to the water of the stream in a valley extending for miles. This made the matter extremely serious. Having heard that dogs which had been eating the carcase had shown certain symptoms, as well as being aware that the pony on the same farm had died of the disease, the doctor concluded that anthrax caused the cow's death, and he recommended that the carcase should be cremated.

The County Council authorities left the details of the destruction of the carcase entirely in the hands of the doctor, and also invited the Board of Agriculture to send down an inspector. There was an obvious danger in attempting to dig up the carcase, which was in an advanced state of decomposition, as it is possible for the disease to be communicated to men as well as animals, and it was consequently determined to cremate it as it lay in the ground. This was naturally a difficult matter but eventually a scheme was devised which proved entirely successful. With the assistance of Mr. W. Jenkins, engineer, Milford Docks, an iron grating was manufactured, an excavation made right under the place in which the cow was buried, and the grating put there. On Friday, about two tons of coal, with paraffin oil and firewood, were brought to the spot, and, in the presence of Captain M'Ilwaine, Inspector of the Board of Agriculture, and under the superintendence of Dr. Griffith, the materials were placed on the grating and set alight. A funnel had been previously set up to carry away the smoke, but the carcase had not been interfered with. The cremation of the body took about twelve hours, by which time it was thoroughly destroyed, and all danger of infection from that source avoided.

It may be mentioned that a number of photographs were taken of the scene, and they will probably be useful in indicating to other authorities the entirely successful method of dealing with a very difficult and dangerous matter.—*The Pembrokeshire Herald.*

A CASE OF APPARENT FAILURE OF THE PASTEUR TREATMENT.

It is a wholesome process, tending, by the recognition and elimination of error, to the advancement of truth, that, when the apparent soundness of a working hypothesis has been established, every effort should next be made to controvert it. Hence, while keeping in mind the great danger involved in arguing from the particular to the general, we think it right to direct attention to a case, reported by M. Lemaistre, of Limoges, to the Académie de Médecine, of a child, aged nine, who died from hydrophobia seventeen days after having been discharged as cured from the Pasteur Institute in Paris. We are glad to take notice of the case, because it seems to serve as an example of how the resultant equilibrium of attack and resistance, as M. Nocard has described it, may be disturbed by the operation of external and accidental causes. The little boy, it appears, was bitten by a dog on the right cheek (an exceptionally dangerous position) on March 9th last, with a resulting wound of 4 or 5 centimetres long. The place was thoroughly washed with alcohol, and later with a solution of perchloride of mercury, and three stitches were applied. On the sixteenth day the wound was healed. On the day before the boy was bitten the dog had been thought to be ill, and had been seen by a veterinary surgeon. On March 10th, the day after, it bit a man, and was therefore killed. On post-mortem examination it was found to be suffering from hydrophobia, and parts of the central nervous system were sent to the Pasteur Institute; these, when inoculated in animals, produced definite hydrophobia. On March 11th both the boy and the man were taken to the Institute, and energetic antirabic treatment was commenced. The boy was subject for twenty-one days to extremely intensive treatment, and the man for nineteen days to the ordinary method; then both were allowed to return home. The man remained well up to the time the report was presented to the Académie de Médecine on June 19th. The boy remained well for twelve days until, on April 13th, he received accidentally a pailful of cold water over his head. The same evening he began to vomit, at first simple food material, later this mixed with blood; he had pains in his limbs, abdomen, and neck; swallowing became very difficult and painful. He developed a horror of the water and an intolerance of light, and suddenly died from asphyxia on April 18th. The opponents of the Pasteur method will doubtless say that the child never had hydrophobia until it was given him by the inoculations at the Pasteur Institute; or that the treatment had no effect on the disease which was contracted from the bite of the rabid dog. There is, however, a third hypothesis, which seems to us more reasonable. This is that the boy had received from the dog the virus which had

been sufficiently antagonised by the inoculations in the then state of the system, but insufficiently when his bodily resistance was subsequently lowered by the cold affusion. For in the first place the dog was proved to be rabid; secondly, the man subjected to the same treatment did not develop the disease; thirdly, there are several known instances in which persons, after having been bitten by a rabid dog, and having been subjected to the Pasteur treatment, have developed the disease after a comparatively long interval on being exposed to cold. It is frankly admitted by the stoutest upholder of the system that it may fail in certain morbid states of the nervous system and in persons who are subsequently exposed to much cold. But, as M. Nocard maintained in the discussion on M. Lemaistre's paper, it is the only effective method of treating hydrophobia that we possess. Before the time of Pasteur 15 out of every 100 persons bitten by rabid dogs succumbed to the disease, while since his method has been in vogue from 1886 to 1898, of nearly 22,000 persons bitten and treated at the Pasteur Institute only 99 have died, that is not 1 in 200 instead of 30. Further, if we take only the cases of persons bitten by dogs proved, and not merely surmised, to have been hydrophobic the mortality is even less. M. Nocard pointed out that as a body of men coastguards afforded a good example of the dangerous influence of exposure to cold during the after-treatment stage. They were frequently bitten by the dogs of smugglers and after inoculation were often required to return to their full work, which involved great exposure to cold during night watches; but since these men have been exempted from night duty by the authorities during the two months immediately following the cessation of active treatment failure has ceased to occur where before it was not rare. There is, moreover, experimental evidence pointing in the same direction. Inasmuch as all the dogs brought to the Institute after having bitten human beings are not hydrophobic it is not to be wondered at that all the animals inoculated from them do not develop the disease. But a too hasty conclusion must not be drawn in regard to the apparently negative cases, because as a matter of fact with the onset of winter cold a certain number of rabbits and guinea-pigs manifest the disease which had not for several months after inoculation with the suspected medulla shown any sign of it. M. Nocard insisted that the effect of cold on these animals was similar to that on the coastguards in disturbing the balance between attack and resistance. It will be remembered that Pasteur long ago showed, in the case of fowls, which are not normally susceptible to anthrax, that if they are exposed to the influence of cold, as by bathing their feet in very cold water after anthrax bacilli have been injected into the blood, they take the disease. It would seem, then, that the case in question clearly shows the wisdom of protecting patients after the active stage is passed both from cold and from other influences that may be expected to lower their vital resistance.—*The British Medical Journal.*

ARMY VETERINARY DEPARTMENT.

From *London Gazette*, Sept. 11th.

Vet.-Capt. J. Cooper, F.R.C.V.S., to be Vet.-Major.

Amongst the arrivals from South Africa in the Hospital ship "Avoca" were Vet.-Major D. J. Pallin, A.V.D., S.V.O., 1st Division (Lord Methuen's Force), and C.V.S. W. G. Packman.

C.V.S. J. H. G. Paterson, H. Price, and Carlisle are returning per ss. "Armenian" which left the Cape on September 15th.

C.V.S. G. Douglas left in Hospital ship "Dunera" on Sept. 26th.

OBITUARY.

Vet.-Lieut.-Col. George Roche Kettlewell.

Veterinary-Lieut.-Colonel George Roche Kettlewell, late Indian Veterinary Department, died suddenly at his residence at Bedford on September 17th.

Veterinary-Lieut.-Col. Kettlewell graduated from the London College in May, 1853, and was appointed to the Indian Army in 1854. He served with the 2nd Bengal Light Cavalry at Cawnpore from December 1854 to February 1855; with 3rd Bengal Light Cavalry at Meerut from February 1855 till January 1857; with 1st Troop, 1st Brigade, Bengal Horse Artillery, from January 1857 to January 1860; with 1st Sikh Irregular Cavalry (Probyn's Horse) from February 1860 to January 1861; was appointed to Bengal Stud Department in 1861. On abolition of the Indian studs in 1875 was in veterinary charge of Remount Depôt, Saharunpur, till 1882, when he was appointed to the Lahore Veterinary College, which Vet.-Lt.-Col. Kettlewell founded and was Principal of till July, 1890. From February 1891 to February 1895 was Inspecting Veterinary Officer, Madras Presidency. Retired from the Service 1895.

War Services.—Served with the 1st. Troop 1st Brigade Bengal Horse Artillery throughout the Mutiny from the outbreak at Jullundhur when the mutineers attacked the guns, was present at the Seige and capture of Delhi from the 27th June to the 22nd September, also at the action of Najuff-ghur on the 25th August under Brigadier General Nicholson, C.B.

Served with the movable column under Brigadier Greathed, and was present at the action at Bulund-Shuhur 28th September and at the Battle of Agra on the 10th October; subsequently served with the same column under General Sir J. H. Grant, K. C. B., also with the force under Lord Clyde at the relief of Lucknow in November, and at the defeat of the Gwalior contingent at Cawnpore in December following and was present at the siege and capture of Lucknow in March, 1858.

Served with the 1st Sikh Irregular Cavalry (or Probyn's Horse) during the China Campaign of 1860, from the landing of the Force at Kowloon in April to the occupation of Pekin, and was present at the action of the 12th August at Singho, on the 18th September at Chunkia Wha, and on the 21st September near Sung Chow.

Medals.—Indian Mutiny Medal and Clasp, China Medal and Clasp.

Joshna A. Nunn, Vet.-Lieut. Col.

Henry Stanley, M.R.C.V.S., Old Kent Road, S.E.
Graduated Lond., April, 1862.

Mr. Stanley was for a number of years V.S. to the South Eastern Railway Company, and died on Wednesday, 29th August. He was 71 years of age.

Communications, Books, and Papers received—Lt.-Col. Nunn, Maj. R. Moore, Col. Queripel. Messrs. G. H. Locke, F. W. Stanley. "Fair Play," "One of the Sold Ones." "*Flies Injurious to Stock.*" *The Consett Guardian.*

We shall be obliged by early intelligence of all matters worth bringing under the notice of the profession, and thankful to any friends who may send us cuttings from local papers containing facts of interest.

Original articles and reports should be written on one side only of the paper and authenticated by the names and addresses of the writers, not necessarily for publication.

Communications for the Editor to be addressed 20 Fulham Road, S.W.